IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-10 (Canceled).

Claim 11 (Currently Amended): A data retrieval method comprising:

storing a plurality of structured data items in a first memory, each of the structured data items including one or more elements, each of the elements including an element name and an element value;

storing, in a second memory, (a) a plurality of labels corresponding to a plurality of types of the element value respectively, each of the labels indicating a name of one of the types, and (b) one or more element- value- patterns for each label of the labels, each of the element- value- patterns expressing an arrangement of characters of a character string which belongs to one of the types corresponding to the label;

~~acquiring, from the second memory, a label of the labels which corresponds to the element name of each element by comparing the element value of each element with the element- value- patterns, the label corresponding to one of the element- value- patterns which matches the element value, to obtain a plurality of data sets each including the label and the element name whose element value matches one of the element- value- patterns which corresponds to the label;~~

comparing the element value of each element of the elements with the element- value- patterns for each of the labels stored in the second memory, to obtain a plurality of data sets each including (a) the element name of the element and (b) one of the labels whose corresponding element- value- pattern matches the arrangement of the characters of the element value of the element;

storing the data sets in a third memory,

inputting a search request including a keyword and one of the labels;

retrieving, from the third memory, one of the data sets which includes the one of the labels included in the search request, to obtain the element name included in the one of the data sets;

retrieving, from the first memory, one of the structured data items which includes a first element whose element name is equal to the element name included in the one of the data sets and a second element whose element value includes the keyword; and

outputting the element value of the first element.

Claim 12 (Currently Amended): A data retrieval method comprising:

storing a plurality of structured data items in a first memory, each of the structured data items including one or more elements, each of the elements including an element name and an element value;

storing, in a second memory, ~~a plurality of element- value- patterns and a plurality of labels which correspond to the element- value- patterns respectively~~(a) a plurality of labels corresponding to a plurality of types of the element value respectively and each of the labels indicating a name of one of the types, and (b) one or more element- value- patterns for each label of the labels, each of the element- value- patterns expressing an arrangement of characters of a character string which belongs to one of the types corresponding to the label;

~~acquiring, from the second memory, a label of the labels which corresponds to the element name of each element by comparing the element value of each element with the element- value- patterns, the label corresponding to one of the element- value- patterns which matches the element value, to obtain a plurality of data sets each including the label and the element name whose element value matches one of the element- value- patterns which corresponds to the label;~~

comparing the element value of each element of the elements with the element- value- patterns for each of the labels stored in the second memory, to obtain a plurality of data sets each including (a) the element name of the element and (b) one of the labels whose corresponding element- value- pattern matches the arrangement of the characters of the element value of the element;

storing the data sets in a third memory;

storing a plurality of word-patterns and the labels corresponding to the word-patterns respectively, in a fourth memory;

inputting a search request expressed in natural-language and including a plurality of words;

acquiring, from the fourth memory, one of the labels which corresponds to one of the words included in the search request by comparing the words with the word- patterns, the one of the labels corresponding to one of the word- patterns which matches the one of the words, to obtain an acquired label;

extracting another of the words as a keyword;

retrieving, from the third memory, one of the data sets which includes the acquired label, to obtain the element name included in the one of the data sets;

retrieving, from the first memory, one of the structured data items which includes a first element whose element name is equal to the element name included in the one of the data sets and a second element whose element value includes the keyword; and

outputting the element value of the first element.

Claims 13-14 (Cancelled).

Claims 15 (Currently Amended): A data retrieval apparatus comprising:

a first memory to store a plurality of structured data items, each of the structured data items including one or more elements, each of the elements having an element name and an element value;

a second memory to store ~~a plurality of element- value- patterns and a plurality of labels which correspond to the element- value- patterns respectively~~ (a) a plurality of labels corresponding to a plurality of types of the element value respectively, each of the labels indicating a name of one of the types, and (b) one or more element- value- patterns for each label of the labels, each of the element- value- patterns expressing an arrangement of characters of a character string which belongs to one of the types corresponding to the label;

~~acquiring, from the second memory, a label of the labels which corresponds to the element name of each element by comparing the element value of each element with the element- value- patterns, the label corresponding to one of the element- value- patterns which matches the element- value, to obtain a plurality of data sets each including the label and the element name whose element- value matches one of the element- value- patterns which corresponds to the label;~~

a label obtaining unit configured to compare the element value of each element of the elements with the element- value- patterns for each of the labels stored in the second

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memory, to obtain a plurality of data sets each including (a) the element name of the element and (b) one of the labels whose corresponding element- value- pattern matches the arrangement of the characters of the element value of the element;

a third memory to store the data sets;

an input unit configured to input a search request including a keyword and one of the labels;

a first retrieval unit configured to retrieve, from the third memory, one of the data sets which includes the one of the labels included in the search request, to obtain the element name included in the one of the data sets;

a second retrieval unit configured to retrieve, from the first memory, one of the structured data items which includes a first element whose element name is equal to the element name included in the one of the data sets and a second element whose element value includes the keyword;

an output unit configured to output the element value of the first element.

Claim 16 (Currently Amended): A data retrieval apparatus comprising:

a first memory to store a plurality of structured data items, each of the structured data items including one or more elements, each of the elements including an element name and an element value;

a second memory to store ~~a plurality of element- value- patterns and a plurality of labels which correspond to the element- value- patterns respectively~~(a) a plurality of labels corresponding to a plurality of types of the element value respectively, each of the labels indicating a name of one of the types, and (b) one or more element- value- patterns for each label of the labels, each of the element- value- patterns expressing an arrangement of characters of a character string which belongs to one of the types corresponding to the label;

~~acquiring, from the second memory, a label of the labels which corresponds to the element name of each element by comparing the element value of each element with the element- value- patterns, the label corresponding to one of the element- value- patterns which matches the element value, to obtain a plurality of data sets each including the label and the element name whose element value matches one of the element- value- patterns which corresponds to the label;~~

a label obtaining unit configured to compare the element value of each element of the elements with the element- value- patterns for each of the labels stored in the second memory, to obtain a plurality of data sets each including (a) the element name of the element and (b) one of the labels whose corresponding element- value- pattern matches the arrangement of the characters of the element value of the element;

a third memory to store the data sets;

a fourth memory to store a plurality of word-patterns and the labels corresponding to the word-patterns respectively;

an input unit configured to input a search request expressed in natural-language and including a plurality of words;

an acquiring unit configured to acquire, from the fourth memory, one of the labels which corresponds to one of the words included in the search request by comparing the words with the word- patterns, the one of the labels corresponding to one of the word- patterns which matches the one of the words, to obtain an acquired label;

an extracting unit configured to extract another of the words as a keyword;

a first retrieval unit configured to retrieve, from the third memory, one of the data sets which includes the acquired label, to obtain the element name included in the one of the data sets;

a second retrieval unit configured to retrieve, from the first memory, one of the structured data items which includes a first element whose element name is equal to the element name included in the one of the data sets and a second element whose element value includes the keyword;

an output unit configured to output the element value of the first element.

Claims 17-20 (Cancelled).

Claim 21 (Currently Amended): A computer readable storage medium storing instructions of a computer program which when executed by a computer results in performance of steps comprising:

storing a plurality of structured data items in a first memory, each of the structured data items including one or more elements, each of the elements including an element name and an element value;

storing, in a second memory, ~~a plurality of element- value- patterns and a plurality of labels which correspond to the element- value- patterns respectively~~(a) <u>a plurality of labels corresponding to a plurality of types of the element value respectively, each of the labels indicating a name of one of the types, and (b) one or more element- value- patterns for each label of the labels, each of the element- value- patterns expressing an arrangement of characters of a character string which belongs to one of the types corresponding to the label</u>;

~~acquiring, from the second memory, a label of the labels which corresponds to the element name of each element by comparing the element value of each element with the element- value- patterns, the label corresponding to one of the element- value- patterns which matches the element value, to obtain a plurality of data sets each including the label and the element name whose element value matches one of the element- value- patterns which corresponds to the label;~~

<u>comparing the element value of each element of the elements with the element- value- patterns for each of the labels stored in the second memory, to obtain a plurality of data sets each including (a) the element name of the element and (b) one of the labels whose corresponding element- value- pattern matches the arrangement of the characters of the element value of the element</u>;

storing the data sets in a third memory;

retrieving when a search request including a keyword and one of the labels is input, from the third memory, one of the data sets which includes the one of the labels included in the search request ,to obtain the element name included in the one of the data sets;

retrieving, from the first memory, one of the structured data items which includes a first element whose element name is equal to the element name included in the one of the data sets and a second element whose element value includes the keyword; and

outputting the element value of the first element.

Claim 22 (Currently Amended): A computer readable storage medium storing instructions of a computer program which when executed by a computer results in performance of steps comprising:

storing a plurality of structured data items in a first memory, each of the structured data items including one or more elements, each of the elements including an element name and an element value;

storing, in a second memory, ~~a plurality of element- value- patterns and a plurality of labels which correspond to the element- value- patterns respectively~~(a) a plurality of labels corresponding to a plurality of types of the element value respectively and each of the labels indicating a name of one of the types, and (b) one or more element- value- patterns for each label of the labels, each of the element- value- patterns expressing an arrangement of characters of a character string which belongs to one of the types corresponding to the label;

~~acquiring, from the second memory, a label of the labels which corresponds to the element name of each element by comparing the element value of each element with the element- value- patterns, the label corresponding to one of the element- value- patterns which matches the element value, to obtain a plurality of data sets each including the label and the element name whose element value matches one of the element- value- patterns which corresponds to the label;~~

comparing the element value of each element of the elements with the element- value- patterns for each of the labels stored in the second memory, to obtain a plurality of data sets each including (a) the element name of the element and (b) one of the labels whose corresponding element- value- pattern matches the arrangement of the characters of the element value of the element

storing the data sets in a third-memory;

storing a plurality of word-patterns and the labels corresponding to the word-patterns respectively, in a fourth memory;

acquiring when a search request expressed in natural-language and including a plurality of words, from the fourth memory, one of the labels which corresponds to one of the words included in the search request by comparing the words with the word- patterns, the one of the labels corresponding to one of the word- patterns which matches the one of the words, to obtain an acquired label;

extracting another of the words as a keyword;

retrieving, from the third memory, one of the data sets which includes the acquired label, to obtain the element name included in the one of the data sets;

retrieving, from the first memory, one of the structured data items which includes a first element whose element name is equal to the element name included in the one of the data sets and a second element whose element value includes the keyword; and

outputting the element value of the first element.

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